

[illegible]

FIGURE 2

BLOCK I:		
AtELF3	13	P M F P R L H V N D A D K G G - P R A P P R N K M A L Y E Q L S I P S Q R F 49
AtEEC	15	P L F P R L V H V N D T G R G G - L S Q Q F D G K T M S L V S S K R P N L P S 49
cardamineELF3	13	P M F P R L H V N D A D E G G - P R A P P R N K M A L Y E Q L S I P S E R F 49
tomatoELF3	13	P M F P R L N V N D T E K G G - P R A P P R N K M A L Y E Q L S I P S Q R Y 49
riceELF3	22	P L F P R L H V N D A A K G G G P R A P P R N K M A L Y E Q F T V P S H R F 59
BLOCK II:		
AtELF3	317	S P D D V V G I L G Q K R F W R A R K A I A N Q Q R V F A V Q L F E L H R L I K V Q K L I A A S P 365
AtEEC	238	S S Y D I A R V I G E K R F W K M R T Y M I N Q Q K I F A G Q V F E L H R L I M V Q K M V A K S P 285
cELF3	291	S P D D V V G A L G Q K R F W R A R K A I T N Q Q R V F A V Q L F E L H R L I K V Q R L I A A S P 339
tELF3	341	S P D D I V G I I G L K R F W K A R R A I V N Q Q R V F A I Q V F E L H R L I K V Q R L I A G S P 389
rELF3	394	S P D K I V G A I G T K H F W K A R R A I M N Q Q R V F A V Q V F E L H K L V K V Q K L I A A S P 442
maizeELF3	?	S P D D V V S A I G P K H F W K A R R A I V N Q Q R V F A V Q V F E L H R L I K V Q K L I A A S P ?
BLOCK III:		
AtELF3	462	P P P S G N H Q Q W L I P V M S P S E G L I Y K P 469
AtEEC	358	P P P - G N - - Q W L V P V I T D S D G L V Y K P 379
cELF3	441	P P P S G N - Q Q W L I P V M S P S E G L I Y K P 464
tELF3	485	Q Q P S G - H - Q W L I P V M S P S E G L V Y K P 508
rELF3	544	- Q P P Q N - - Q W L V P V M S P L E G L V Y K P 565
mELF3	?	- - - - - Q W L I P V M S P S E G L V Y K P ?
BLOCK IV:		
AtELF3	660	R V I K V V P H N A K L A S E N A A R I F Q S I Q E E R 691
AtEEC	505	R A I K A V P H N S T S A S E S A A R I F R F I Q E E R 536
cELF3	577	R V I K V V P H N A K L A S E N - - - - - 577
tELF3	677	R V I K V V P H N A R S A T E S V A R I F Q S I Q Q E R 704
rELF3	729	N V I K V V P H N S R T A S E S A A R I F R S I Q M E R 756
mELF3	?	R V I R K V P H T A R T A S E S A A R I F R S I Q M E R ?

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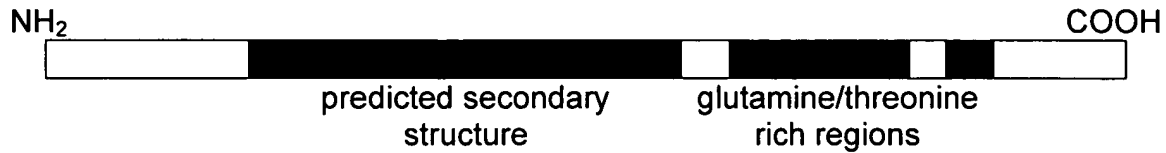
FIG. 3

Table 1. *Arabidopsis* seedlings overexpressing ELF3 have a reduced sensitivity to red light in hypocotyl elongation and flower late in LD. Mean hypocotyl length in millimeter and flowering time \pm SE are indicated. Number of plants measured for each character and genotype is indicated in parenthesis

Genotype	Hypocotyl Length in millimeter	Flowering Time As		Flowering Time	
		Number of Leaves at 1cm Bolt	As Days to 1cm Bolt	As Days to 1cm Bolt	As Days to 1cm Bolt
		LD	SD	LD	SD
COL-0	5.69 \pm 0.55 (21)	10.8 \pm 1.36 (20)	64.60 \pm 5.10 (10)	29.00 \pm 2.02 (20)	102.4 \pm 6.41 (10)
ELF3-OX	2.96 \pm 0.52 (27)	42.5 \pm 4.42 (16)	57.03 \pm 1.37 (47)	60.56 \pm 7.53 (16)	96.96 \pm 0.92 (47)
<i>elf3-1</i>	12.40 \pm 0.94 (27)	5.15 \pm 0.73 (20)	9.65 \pm 2.95 (17)	20.75 \pm 1.26 (20)	47.06 \pm 6.59 (17)
phyB-9	14.69 \pm 0.86 (20)	7.17 \pm 1.34 (18)	NA	25.83 \pm 1.98 (18)	NA
phyB/ELF3-OX	10.09 \pm 0.70 (19)	44.07 \pm 5.21 (27)	NA	64.37 \pm 9.58 (27)	NA

FIG. 4

Features of the predicted 695 amino acid ELF3 protein



Molecular basis of the *elf* 3 mutations

elf3-1	C to T change in exon 3 (stop)
elf3-2	~1.5 kb C-terminal deletion
elf3-3	G to T change in exon 2 (stop)
elf3-4	11 bp deletion in exon 1 (stop)
elf3-5	C to T change in exon 1 (stop)
elf3-6	AG to AA change in the exon 4 splice acceptor site
elf3-7	G to A change in the exon 1 splice donor site*
	*makes ~ 20% full length wild type <i>ELF3</i> mRNA
elf3-8	unknown
elf3-9	unknown